

Page 18, line 4, change "Method" to --A method--; after "data" insert --is performed as follows--;

line 19, change "a" (first occurrence) to --A--;

line 20, after "driver" insert --203--;

line 21, change "Method" to --A method--; after "data" insert --is performed as follows--.

Page 19, line 25, change "Method" to --A method--; after "file" insert --is performed as follows--;

line 28, after "CloseHandle" insert --function--.

IN THE CLAIMS

Please cancel claims 1 through 37, 63 through 92 and 94 without prejudice or disclaimer, amend claims 38 through 62 and 93, and add new claims 95 through 141, as follows:

38. (ONCE AMENDED) A recording [and] and/or reproducing method comprising the steps of:

(a) arranging and recording real time files requiring real time recording/reproduction according to real time recording/reproduction in a recording medium according to real time recording/reproduction information for ensuring real time reproduction, and recording the real time recording/reproduction information in the recording medium; and

(b) reading and reproducing the real time files using the real time recording/reproduction information.

A1
CONT'D

39. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the step (a) comprises storing the real time recording/reproduction information in a file control information area of the recording medium.

2/1
cond.

40. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the step (a) comprises storing the real time recording/reproduction information in a file control information area of a UDF system of the recording medium.

41. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the step (a) comprises storing the real time recording/reproduction information in each corresponding real time file.

42. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the step (a) comprises storing the real time recording/reproduction information associated with the real time files in a separate file from the real time files.

43. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the step (a) comprises storing the real time recording/reproduction information in a volume structure area of the recording medium.

44. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the real time recording/reproduction information includes file indication information indicating that the real time files require real time recording/reproduction.

45. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the real time files have sections with different bit rates, and the

A1
CONT'D

real time recording/reproduction information includes recording/reproduction bit rate information which includes information associated with the sections and a plurality of bit rate values corresponding to the different bit rates of the sections.

sub
c2

46. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 45, the step (a) comprises automatically arranging file data areas of the real time files according to the recording/reproduction bit rate information.

47. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 46, wherein the real time recording/reproduction information includes a maximum allowable value of the real time recording/reproduction bit rates.

48. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the real time recording/reproduction information includes at least one of minimum contiguous storage blocks satisfying a condition in which a playback time of a current data block is greater than a sum of the seek time and a read time of a data block to be played back next, and a playback time for ensuring minimum contiguous storage.

49. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 48, wherein the step (a) comprises arranging the real time files in the minimum contiguous storage blocks.

sub
c3

50. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 48, wherein the step (a) comprises the step (a1) if an end portion of one of the real time files is not filled with data by one of the minimum contiguous storage blocks while the one real time file is recorded in units of the minimum contiguous storage blocks, recording as the real time recording/reproduction information an attribute indicating that a number of data blocks corresponding to a size of the unfilled portion are allocated but unrecorded.

A1
CONT'D

51. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 48, wherein the minimum contiguous storage blocks are classified according to a size of an error correction code block and a maximum seek time.

sub 24

52. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 51, wherein the step (a) comprises arranging the real time files in the classified minimum contiguous storage blocks.

53. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 48, wherein the real time recording/reproduction information further includes current real time recordable/reproducible state information indicating whether a current file is arranged so as to be recorded/reproduced in real time.

54. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 48, wherein the real time recording/reproduction information further includes contiguous recording/reproduction type information classified by conditions for controlling real time files, the conditions including recording/reproduction bit rate information, file defect management information, file allocation information, file buffering information, and the information of the minimum contiguous storage blocks.

55. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 48, wherein the real time recording/reproduction information further includes at least one of file defect management information indicating that replacement of a defective block with a block in a spare area of the recording medium and rereading or rewriting of the defective block are not attempted when reading or writing has failed, file allocation information indicating that a data block is not allocated to the defective block replaced by the spare area, and file buffering information associated with an amount of data to be initially read from a buffer and an amount of data written from the buffer at a time.

AI
CONT.

56. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the step (b) comprises the [substeps] steps of:

- (b1) reading a volume area on the recording medium; and
- (b2) reproducing a file as one of the real time files in consideration of the real time recording/reproduction information if the real time recording/reproduction information exists in the volume area.

57. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 56, wherein the step (b2) comprises analyzing recording/reproduction bit rate information, defect management information, file allocation information, and file buffering information according to the real time recording/reproduction information in the volume area, and reading and reproducing file data in minimum contiguous storage blocks of the file.

58. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the step (b) comprises the [substeps] steps of:

- (b1) determining whether the real time recording/reproduction information exists in a file area; and
- (b2) reproducing a file in consideration of the real time recording/reproduction information if the real time recording/reproduction information exists in the file area.

59. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 58, wherein the step (b2) comprises analyzing recording/reproduction bit rate information, defect management information, file allocation information, and file buffering information according to the real time recording/reproduction information in the file area, and reading and reproducing file data in minimum contiguous storage blocks.

60. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 38, wherein the method further comprises the step of:

A1
CONCL. (c) copying a file to a free area from which a defective block is excluded, based upon the real time recording/reproduction information and general defect management information recorded on the recording medium.

61. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 60, wherein the step (c) comprises copying the real time recording/reproduction information and the file together.

62. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 60, wherein the step (c) comprises copying only real time file data based on the real time recording/reproduction information.

A2
CONCL. 93. (ONCE AMENDED) The recording [and] and/or reproducing method as claimed in claim 48, wherein the real time recording/reproduction information further includes current real time recordable/reproducible state information indicating whether it is possible to record/reproduce a current file in real time.

A3
CONT'D 95. (NEW) A recording method comprising the steps of:
arranging and recording real time files requiring real time recording/reproduction according to real time recording/reproduction in a recording medium according to real time recording/reproduction information for ensuring real time reproduction; and
recording the real time recording/reproduction information in the recording medium

96. (NEW) The recording method as claimed in claim 95, wherein the recording of the real time recording/reproduction information comprises storing the real time recording/reproduction information in a file control information area of the recording medium.

97. (NEW) The recording method as claimed in claim 95, wherein the recording of the real time recording/reproduction information comprises storing the real time

A3
CONT'D recording/reproduction information in a file control information area of a UDF system of the recording medium.

98. (NEW) The recording method as claimed in claim 95, wherein the recording of the real time recording/reproduction information comprises storing the real time recording/reproduction information in each corresponding real time file.

99. (NEW) The recording method as claimed in claim 95, wherein the recording of the real time recording/reproduction information comprises the real time recording/reproduction information associated with the real time files in a separate file from the real time files.

100. (NEW) The recording method as claimed in claim 95, wherein the recording of the real time recording/reproduction information comprises storing the real time recording/reproduction information in a volume structure area of the recording medium.

101. (NEW) The recording method as claimed in claim 95, wherein the real time recording/reproduction information includes file indication information indicating that the real time files require real time recording/reproduction.

102. (NEW) The recording method as claimed in claim 95, wherein the real time files have sections with different bit rates, and the real time recording/reproduction information includes recording/reproduction bit rate information which includes information associated with the sections and a plurality of bit rate values corresponding to the different bit rates of the sections.

103. (NEW) The recording method as claimed in claim 102, the recording of the real time recording/reproduction information comprises automatically arranging file data areas of the real time files according to the recording/reproduction bit rate information.

A3
CONT'D

104. (NEW) The recording method as claimed in claim 103, wherein the real time recording/reproduction information includes a maximum allowable value of the real time recording/reproduction bit rates.

105. (NEW) The recording method as claimed in claim 95, wherein the real time recording/reproduction information includes at least one of minimum contiguous storage blocks satisfying a condition in which a playback time of a current data block is greater than a sum of the seek time and a read time of a data block to be played back next, and a playback time for ensuring minimum contiguous storage.

106. (NEW) The recording method as claimed in claim 105, wherein the recording of the real time recording/reproduction information comprises arranging the real time files in the minimum contiguous storage blocks.

107. (NEW) The recording method as claimed in claim 105, wherein the recording of the real time recording/reproduction information comprises, if an end portion of one of the real time files is not filled with data by one of the minimum contiguous storage blocks while the one real time file is recorded in units of the minimum contiguous storage blocks, recording as the real time recording/reproduction information an attribute indicating that a number of data blocks corresponding to a size of the unfilled portion are allocated but unrecorded.

108. (NEW) The recording method as claimed in claim 105, further comprising classifying the minimum contiguous storage blocks according to a size of an error correction code block and a maximum seek time.

109. (NEW) The recording method as claimed in claim 108, wherein the arranging and recording of the real time files comprises arranging the real time files in the classified minimum contiguous storage blocks.

A3
CONT. D

110. (NEW) The recording method as claimed in claim 105, wherein the real time recording/reproduction information further includes current real time recordable/reproducible state information indicating whether a current file is arranged so as to be recorded/reproduced in real time.

111. (NEW) The recording method as claimed in claim 105, wherein the real time recording/reproduction information further includes contiguous recording/reproduction type information classified by conditions for controlling real time files, the conditions including recording/reproduction bit rate information, file defect management information, file allocation information, file buffering information, and the information of the minimum contiguous storage blocks.

112. (NEW) The recording method as claimed in claim 105, wherein the real time recording/reproduction information further includes at least one of file defect management information indicating that replacement of a defective block with a block in a spare area of the recording medium and rereading or rewriting of the defective block are not attempted when reading or writing has failed, file allocation information indicating that a data block is not allocated to the defective block replaced by the spare area, and file buffering information associated with an amount of data to be initially read from a buffer and an amount of data written from the buffer at a time.

113. (NEW) The recording method as claimed in claim 38, wherein the method further comprises the steps of:

recording general defect management information in the recording medium; and
copying a file to a free area from which a defective block is excluded, based upon the real time recording/reproduction information and the general defect management information recorded in the recording medium.

A3
CONT'D

114. (NEW) The recording method as claimed in claim 113, wherein the copying of the file comprises copying the real time recording/reproduction information and the file together.

115. (NEW) The recording method as claimed in claim 113, wherein the copying of the file comprises copying only real time file data based on the real time recording/reproduction information.

116. (NEW) The recording method as claimed in claim 105, wherein the real time recording/reproduction information further includes current real time recordable/reproducible state information indicating whether it is possible to record/reproduce a current file in real time.

117. (NEW) A reproducing method of a recording medium, wherein real time files requiring real time recording/reproduction according to real time recording/reproduction are stored in a recording medium according to real time recording/reproduction information for ensuring real time reproduction, and the real time recording/reproduction information is stored in the recording medium, the method comprising:

reading the real time files using the real time recording/reproduction information; and
reproducing the read real time files.

118. (NEW) The reproducing method as claimed in claim 117, wherein the reading of the real time files comprises reading the real time recording/reproduction information from a file control information area of the recording medium.

119. (NEW) The reproducing method as claimed in claim 117, wherein the reading of the real time files comprises reading the real time recording/reproduction information from a file control information area of a UDF system of the recording medium.

A3
CONT'D

120. (NEW) The reproducing method as claimed in claim 117, wherein the reading of the real time files comprises reading the real time recording/reproduction information in each corresponding real time file.

121. (NEW) The reproducing method as claimed in claim 117, wherein the reading of the real time files comprises reading the real time recording/reproduction information associated with the real time files in a separate file from the real time files.

122. (NEW) The reproducing method as claimed in claim 117, wherein the reading of the real time files comprises reading the real time recording/reproduction information in a volume structure area of the recording medium.

123. (NEW) The reproducing method as claimed in claim 117, wherein the real time recording/reproduction information includes file indication information indicating that the real time files require real time recording/reproduction.

124. (NEW) The reproducing method as claimed in claim 117, wherein the real time files have sections with different bit rates, and the real time recording/reproduction information includes recording/reproduction bit rate information which includes information associated with the sections and a plurality of bit rate values corresponding to the different bit rates of the sections, the method further comprising:

reading the sections of the real times files in accordance with the corresponding plurality of bit rate values.

125. (NEW) The reproducing method as claimed in claim 124, wherein the file data areas of the real time files are arranged according to the recording/reproduction bit rate information.

A3
CONT'D

126. (NEW) The reproducing method as claimed in claim 125, wherein the real time recording/reproduction information includes a maximum allowable value of the real time recording/reproduction bit rates.

127. (NEW) The reproducing method as claimed in claim 117, wherein the real time recording/reproduction information includes at least one of minimum contiguous storage blocks satisfying a condition in which a playback time of a current data block is greater than a sum of the seek time and a read time of a data block to be played back next, and a playback time for ensuring minimum contiguous storage.

128. (NEW) The reproducing method as claimed in claim 127, wherein the real time files are arranged in the minimum contiguous storage blocks.

129. (NEW) The reproducing method as claimed in claim 127, wherein if an end portion of one of the real time files is not filled with data by one of the minimum contiguous storage blocks while the one real time file is recorded in units of the minimum contiguous storage blocks, the real time recording/reproduction information is recorded as an attribute indicating that a number of data blocks corresponding to a size of the unfilled portion are allocated but unrecorded.

130. (NEW) The reproducing method as claimed in claim 127, wherein the minimum contiguous storage blocks are classified according to a size of an error correction code block and a maximum seek time.

131. (NEW) The reproducing method as claimed in claim 127, wherein the real time recording/reproduction information further includes current real time recordable/reproducible state information indicating whether a current file is arranged so as to be recorded/reproduced in real time.

A3
CONT'D

132. (NEW) The reproducing method as claimed in claim 127, wherein the real time recording/reproduction information further includes contiguous recording/reproduction type information classified by conditions for controlling real time files, the conditions including recording/reproduction bit rate information, file defect management information, file allocation information, file buffering information, and the information of the minimum contiguous storage blocks.

133. (NEW) The reproducing method as claimed in claim 127, wherein the real time recording/reproduction information further includes at least one of file defect management information indicating that replacement of a defective block with a block in a spare area of the recording medium and rereading or rewriting of the defective block are not attempted when reading or writing has failed, file allocation information indicating that a data block is not allocated to the defective block replaced by the spare area, and file buffering information associated with an amount of data to be initially read from a buffer and an amount of data written from the buffer at a time.

134. (NEW) The reproducing method as claimed in claim 117, wherein the reading of the real time files comprises the steps of:

reading a volume area on the recording medium; and
reproducing a file as one of the real time files in consideration of the real time recording/reproduction information if the real time recording/reproduction information exists in the volume area.

135. (NEW) The reproducing method as claimed in claim 134, wherein the reproducing of the file comprises analyzing recording/reproduction bit rate information, defect management information, file allocation information, and file buffering information according to the real time recording/reproduction information in the volume area, and reading and reproducing file data in minimum contiguous storage blocks of the file.

A3
CONT'D

136. (NEW) The reproducing method as claimed in claim 117, wherein the reproducing of the file comprises the steps of:

determining whether the real time recording/reproduction information exists in a file area; and

reproducing a file in consideration of the real time recording/reproduction information if the real time recording/reproduction information exists in the file area.

137. (NEW) The recording and reproducing method as claimed in claim 136, wherein the reproducing of the file comprises analyzing recording/reproduction bit rate information, defect management information, file allocation information, and file buffering information according to the real time recording/reproduction information in the file area, and reading and reproducing file data in minimum contiguous storage blocks.

138. (NEW) The reproducing method as claimed in claim 117, wherein the method further comprises the step of:

(c) copying a file to a free area from which a defective block is excluded, based upon the real time recording/reproduction information and general defect management information recorded on the recording medium.

139. (NEW) The reproducing method as claimed in claim 138, wherein the copying of the file comprises copying the real time recording/reproduction information and the file together.

140. (NEW) The reproducing method as claimed in claim 138, wherein the copying of the file comprises copying only real time file data based on the real time recording/reproduction information.

141. (NEW) The reproducing method as claimed in claim 127, wherein the real time recording/reproduction information further includes current real time recordable/reproducible

A3
CONCL.

state information indicating whether it is possible to record/reproduce a current file in real time.
